medication (RR 1.5; 95%CI 1.4-1.7). Corresponding PAR% was 3%. **CONCLUSIONS:** In the first year of life, preterm born infants are up to 2.0 times more likely than full term borns to be hospitalized or use medication, especially related to respiratory disease.

PIH9

DIETARY SUPPLEMENT USE IN THE UNITED STATES: NATIONAL HEALTH AND NUTRITION EXAMINATION SURVEY (NHANES), 2007-2009

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OBJECTIVES: A dietary supplement (DS) is defined as "any product intended for ingestion as a supplement to the diet." These substances include vitamins, minerals, herbs, amino acids, and other substances. Marketing data show a dramatic increase in DS sales in the last decade. The most recent published literature on the prevalence of DS use in United States was based on data from 1999-2000. There is a need for updated literature. The objective of this study was to measure the prevalence of DS use and to examine associations of its use with select demographic characteristics in the United States. **METHODS:** DS data from 2007–2009 National Health and Nutrition Examination Survey (NHANES), a nationally representative, cross-sectional survey of US health and nutrition, was analyzed. The proportions of users of any DS, multivitamins/multiminerals, vitamin-B-complex, calcium, calcium/antacids were calculated. Bivariate and Multivariate analyses were done to assess the relationship of DS use and some demographic/lifestyle characteristics. **RESULTS:** Approximately 43% of US population reported taking DS(s) in the past month; DSs were consumed by females (48%) more than males (38%), youngers (0-11 years; 33%) and elders (40 years and more; 59%) more than middle age (12-39 years; 29%), more than high school educated people (56%) than less than high school (30%), non-Hispanic Whites (50%) more than other races (average 30%). Multivitamins/multiminerals were the most commonly consumed DS (60%) followed by antacid, vitamin B-complex and vitamin C. In bivariate analyses non-Hispanic White race, older age categories, more education, and female gender were significantly associated with greater use of any DS. In multivariable analysis the latter three characteristics were still associated with greater use. **CONCLUSIONS:** A substantial proportion of the US population takes DS mainly as vitamins, minerals, and/or other dietary supplements. This study provides detailed information for health care professionals and researchers regarding the DS use.

PIH10

UTILIZATION PATTERNS OF BISPHOSPHONATES AND SELECTIVE SEROTONIN REUPTAKE INHIBITORS FROM 2004 T0 2008 AMONG ADULT WOMEN

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OBJECTIVES: Selective serotonin reuptake inhibitors (SSRIs) have been associated with increased risk of osteoporotic-related fractures. Bisphosphonates (BPs) are one of the recommended medications for osteoporosis and fracture prevention. The primary objective of this study was to examine the proportion of BP users who are also on SSRIs and to explore the relationship between concomitant use and patient age among women aged 45 years and older. **METHODS:** Data from the 2004-2008 Medical Expenditure Panel Survey (MEPS) was used to examine usage patterns of BPs and SSRIs for women aged ≥45 years. Analyses were based on yearly consolidated data and prescribed medicines files. Weighed descriptive statistics were used to evaluate patterns of medications use and proportions were reported. Age was categorized into two groups: 45-64, and 65-85 years old. **RESULTS:** In the timeframe examined, 3.5% women in 2004, 3.8% in 2005, 4.0% in 2006, 3.9% in 2007, and 4.0% in 2008 received bisphosphonates. In the same period, 8.6% women in 2004, 8.5% in 2005, 8.1% in 2006, 7.4% in 2007, and 7.9% in 2008 received SSRIs. Concomitant use (BPs+SSRIs) was observed in 0.4% women in 2004, 0.5% in 2005, 0.6% in 2006, 0.6% in 2007, and 0.6% in 2008. In 2006, 2007, and 2008, concomitant use of BPs+SSRIs was higher in the 65-85 age group compared to that of 45-64 years. This pattern may be in large part due to increasing population of older women in the United States. **CONCLUSIONS:** Concomitant use of BPs and SSRIs in adult women ≥45 years is not uncommon and might be higher in older postmenopausal women. The observed concomitant use presents drug safety challenges surrounding the bone health of postmenopausal women. Studies are needed to investigate the potential interactive effects of SSRIs on BP therapy.

PIH11

PREVALENCE AND INCIDENCE RATES OF MOST COMMON COMORBID CONDITIONS AMONG PATIENTS WITH TUBEROUS SCLEROSIS COMPLEX: A NAITONAL CLAIM DATABASE ANALYSIS

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OBJECTIVES: Tuberous sclerous complex (TSC) is a multi-system disorder that can affect almost any organ system in the body. The objective of this study is to examine the prevalence and incidence rates of the common co-morbid conditions among patients with TSC. **METHODS:** We used a large national health care claims database for 39 million commercially insured US populations. Patients with a TSC claim between 2000 and 2009, and continuous enrollment 12 months before and 12 months after their first TSC diagnosis were included in this analysis (These selection criteria lead to the exclusion of those at age less than one). Approximately 40 TSC related clinical conditions were identified using ICD-9 codes or CPT codes. The prevalence and incidence rates of these conditions are assessed and reported. **RESULTS:** Patients (N=1249) with TSC had mean age of 33.9 years at their 1st TSC diagnosis, and 57.5% were females. The most prevalent comorbid conditions within the first post TSC year were vision disorders (34.8%), benign neoplasm of skin (28.1%), seizure (16.1%), convulsion (15.0%), dyschromia (12.2%), depression (11.1%), cardiac dysrhythmia (9.1%), anxiety (8.6%), sleep disorder (7.8%) and hematuria (6.3%). The conditions with highest incidence rates (per 10,000 patient years) in the same period were benign neoplasm of skin (1,361), vision disorders (1,017), dyschrommia (480), seizure (464), and convulsion (456); subependymal giant cell astrocytoma (160) and Cardiac rhabdomyomas (80) were also observed. **CONCLUSIONS:** TSC affects multi-systems and organs, and is associated with many comorbid conditions. Vision disorders, benign skin cancer, seizure, convulsion, dyschromia, depression, cardiac dysrhythmia, anxiety, sleep disorders and hematuria are the most prevalent ones in the real world. Managing TSC could be challenging due to its multi-system involvement. Future effort should focus on developing treatment that treat the underlying cause of the disease.

INDIVIDUAL'S HEALTH – Cost Studies

PIH12

BUDGET IMPACT ANALYSIS OF ADDING A NEW FIXED-DOSE COMBINATION THERAPY OF DUTASTERIDE AND TAMSULOSIN TO THE TREATMENT OF SYMPTOMATIC BENIGN PROSTATIC HYPERPLASIA IN QUEBEC, CANADA

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OBJECTIVES: To estimate the budget impact (BI) of adding a new fixed-dose combination (FDC) of 0.5mg dutasteride and 0.4mg tamsulosin daily to the Regie de L'assurance Maladie du Quebec (RAMQ) formulary for a three year period following its listing for the treatment of symptomatic benign prostatic hyperplasia (BPH). **METHODS:** The analysis compared RAMQ drug expenditures after the introduction of FDC (New Drug Scenario) with an alternative scenario without FDC (Reference Scenario). Treatments in the reference scenario include alpha blockers (tamsulosin, doxazosin, terazosin, alfuzosin), 5α-reductase inhibitors (finasteride, dutasteride) and their combinations. The treated population was assumed to be equal to the population of men in Quebec aged ≥50 years with moderate to severe symptoms of BPH (estimated at 312,448). In the primary analysis, FDC was assumed to gain 2.5%, 5.8% and 9.3% of BPH market share in the first 3 years after listing with 75% of share gains coming from patients switching from an alpha blocker plus dutasteride, and 25% from patients switching from tamsulosin monotherapy. One-way sensitivity analysis was performed to quantify the effect of uncertainty around the market shares assumptions. **RESULTS:** In the primary analysis, adding FDC to RAMQ is projected to result in a cost saving of $0.253M over three years. Assuming only 60% of market share comes from patients currently taking dutasteride plus an alpha blocker, the total incremental BI is $5.879M over 3 years. If FDC gains 90% of its market shares from dutasteride plus an alpha blocker, the BI would results in a cost saving of $6.386M over 3 years. **CONCLUSIONS:** Based on this budget impact analysis, it may be cost-saving for the RAMQ to switch patients who are treated with combination therapy of separate drugs of dutasteride and an alpha blocker to a FDC of dutasteride and tamsulosin.

PIH13

A COMPARISON OF ANNUAL OVERALL AND EPILEPSY-RELATED HEALTH CARE COSTS BETWEEN ADULT PATIENTS WITH DIFFERENTIALLY-CONTROLLED EPILEPSY

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OBJECTIVES: Epilepsy affects about 3 million people in the United States and accounts for $17.6 billion/year in health care costs. Many antiepileptic drugs (AEDs) are used to treat the disease, but some patients remain refractory. We compared annual overall and epilepsy-related health care costs between refractory and stable epileptic adults. **METHODS:** We identified adults (age≥18years) with epilepsy requiring additional AED therapy (defined as refractory) and not requiring such therapy (stable) from the MarketScan claims database in 2007-2009. An index date was selected during calendar year 2008: the date on which an additional AED was started for refractory patients; and convenience date for stable patients whose AED use was unchanged in the prior year. All pharmacy and medical claims in the post-index year were used to estimate overall costs. Claims with epilepsy in any diagnosis field were used to estimate epilepsy-related costs. Analysis of covariance was used to compare outcomes after adjusting for baseline differences between groups. **RESULTS:** We identified 1536 refractory and 8571 stable patients (age range: 18-64years; 50.7% vs. 47.6% female; mean Charlson comorbidity index: 0.7 vs. 0.5). Comparing refractory vs. stable patients the total health care costs were $23,238 (SD:$42,894) versus $13,839 (SD:$31,355) per patient-year (PPY) and epilepsy-related costs were $12,399 (SD: $25,773) versus $5,511 (SD:$11,730) PPY ($p<0.001$). Of epilepsy-related costs, $7,257 (SD:$25,202) versus $2,751 (SD:$11,029) PPY were medical and $5,142 (SD:$4,110) versus $2,760 (SD:$3,361) PPY for AEDs ($p<0.001$). After adjusting for age, gender, region, usual care physician specialty, comorbidities and risk factors, overall costs were significantly greater in the refractory compared to stable patients: $7187 ($p<0.001$). **CONCLUSIONS:** Although both refractory and stable epilepsy patients have a high economic burden, the costs incurred by patients with refractory disease are significantly greater. Epilepsy-related costs comprised under 50% of total costs, suggesting a substantial burden of comorbid conditions and/or under-identification of epilepsy-related utilization.